

IN THE CLAIMS:

Serial No. 10/521,742

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 24 and 41 in accordance with the following:

1-22. (Cancelled)

23. (Currently Amended) An inductive component for the formation of a magnetic circuit, comprising:

at least one wire winding formed of a braided wire having 5 to 100 individual wires that are electrically insulated from one another, the individual wires having an individual wire diameter within the range of from 10 μm to 50 μm ;

at least one core formed of a ferromagnetic core material, the core having at least two symmetrical core parts which are opposed to each other and separated by gaps therein to interrupt the magnetic circuit, the gaps each having a gap width within the range of from 2.0 mm to 10 mm, inclusive, at least one of the gaps being an air gap, all of the gaps having an essentially equal gap width;

a heat sink; and

a cooling device to cool the wire winding, the cooling device comprising:

a film formed of a first polymer-thermally conductive filler composite material, the film being in thermally conductive contact with the wire winding; and

a casting compound formed of a second polymer-thermally conductive filler composite material different from the first polymer-thermally conductive filler composite material, the casting compound being in thermally conductive contact with the heat sink.

24. (Currently Amended) An inductive component for the formation of a magnetic circuit, comprising:

at least one wire winding;

at least one core formed of a ferromagnetic core material, the core having space gaps therein to interrupt the magnetic circuit, the each space gaps that interrupts the magnetic circuit each having a gap width within the range of from 2.0 mm to 10 mm, inclusive.

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25. (Previously Presented) The component as claimed in claim 24, wherein the core comprises at least two core parts which are opposed to each other across the gaps and are separated from each other by the gap widths.

26. (Previously Presented) The component as claimed in claim 24, wherein at least one of the gaps is an air gap.

27. (Previously Presented) The component as claimed in claim 24, wherein the gaps all have an essentially equal gap width.

28. (Previously Presented) The component as claimed in claim 24, wherein the wire winding defines an inner region and an outer region, and the gaps of the core are positioned in the inner region and/or in the outer region.

29. (Previously Presented) The component as claimed in claim 24, wherein the core is essentially symmetrical.

30. (Previously Presented) The component as claimed in claim 24, wherein the core is formed of a material that can withstand high frequencies.

31. (Previously Presented) The component as claimed in claim 24, wherein the wire winding comprises a high-frequency braided wire having a multiplicity of individual wires that are electrically insulated from one another.

32. (Previously Presented) The component as claimed in claim 31, wherein the individual wires have an individual wire diameter that is selected from the range of from 10 μm to 50 μm , inclusive.

33. (Previously Presented) The component as claimed in 31, wherein the wire winding is formed from 5 to 100 individual wires.

34. (Previously Presented) The component as claimed in claim 24, wherein the component is a choke coil or a transformer.

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35. (Previously Presented) The component as claimed in claim 24, further comprising at least one cooling device to cool the wire winding, which cooling device is formed from a composite material with at least one polymer material and at least one thermally conductive filler.

36. (Previously Presented) The component as claimed in claim 35, wherein the cooling device comprises at least one film formed of the composite material which film is in direct, thermally conductive contact with the wire winding.

37. (Previously Presented) The component as claimed in claim 35, further comprising a cooling device to cool the wire winding, the cooling device having a first portion formed from a first composite material and a second portion formed from a casting compound, which comprises a second composite material different from the first composite material, both the first and second composite materials being formed from a polymer material and a thermally conductive filler, the second portion being in direct, thermally conductive contact with the wire winding and/or the first portion.

38. (Previously Presented) The component as claimed in claim 35, wherein an intermediate space is present between the cooling device and the wire winding, the intermediate space being filled with a thermally conductive material.

39. (Previously Presented) The component as claimed in claim 38, wherein the thermally conductive material is at least one of an oil, a paste, a wax and/or an adhesive.

40. (Previously Presented) The component as claimed in claim 35, further comprising a heat sink connected in a thermally conducting manner to the cooling device.

41. (Currently Amended) A method comprising:
using an inductive component as an electronic ballast, to convert an electrical input power into an electrical output power, the inductive component forming a magnetic circuit and comprising:

at least one wire winding; and
at least one core formed of a ferromagnetic core material, the core having space gaps therein to interrupt the magnetic circuit, each space the gaps that interrupts the magnetic circuit each having a gap width within the range of from 2.0 mm to 10 mm,

inclusive.

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42.(Previously Presented) The use as claimed in claim 41, wherein the inductive component is operated with an AC voltage at a frequency of from 100 kHz to 200 MHz, inclusive.

43.(Previously Presented) The use as claimed in claim 41, wherein the inductive component is operated at an AC voltage of up to 2000 V.

44.(Previously Presented) The use as claimed in claim 41, wherein the inductive component is operated using a voltage pulse with an AC voltage of up to 40 kV.